

ASSEMBLY MACHINE WITH SPATIAL POSITIONING CONTROL

ABSTRACT OF THE DISCLOSURE

An assembly machine includes a support structure having a plurality of selectively moveable support members that facilitate manually manipulating a tool relative to a work piece. A controller continuously gathers position information regarding the support members to determine every position of the tool. The controller includes a teach mode that allows for storing selected tool activation positions in particular sequences for subsequent control of the tool according to necessary procedures for completing a variety of assembly processes. One example machine designed according to this invention includes selectively controlled biasing members that maintain a zero balance on the tool, provide an operator assist to moving the tool or both.

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